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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,786	10/30/2003	Remy Kirchdoerffer	0514-1132	6043
466	7590	09/23/2005	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			WHITTINGTON, KENNETH	
			ART UNIT	PAPER NUMBER
			2862	

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No. 10/695,786	Applicant(s) KIRCHDOERFFER, REMY	
	Examiner Kenneth J. Whittington	Art Unit 2862	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


Bot Ledyne
Primary Examiner

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/28/04, 2/27/04</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

6

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- 18 (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
24 REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- 30 (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- 36 (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- 42 (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid

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sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

6

Abstract

Applicant is reminded of the proper language and format for an abstract of the disclosure.

12 The abstract should be in narrative form and generally
limited to a single paragraph on a separate sheet within the
range of 50 to 150 words. It is important that the abstract not
exceed 150 words in length since the space provided for the
abstract on the computer tape used by the printer is limited.
The form and legal phraseology often used in patent claims, such
18 as "means" and "said," should be avoided. The abstract should
describe the disclosure sufficiently to assist readers in
deciding whether there is a need for consulting the full patent
text for details.

24 The language should be clear and concise and should not
repeat information given in the title. It should avoid using
phrases which can be implied, such as, "The disclosure
concerns," "The disclosure defined by this invention," "The
disclosure describes," etc.

30 The abstract of the disclosure is objected to because it
consists of two paragraphs; contains legal phraseology, i.e.,
multiple instances of "means" and "said"; and contains language
that can be implied, i.e., "The present invention relates to".
Appropriate corrections are required. See MPEP § 608.01(b).

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Claim Objections

Claims 1-12 are objected to because of the following informalities:

In claim 1, line 7, "suitable" is a vague term with no definite meaning.

6 In claims 1, 3, 4, 5, 6, 9, and 12, the use of phrases "particularly", "for example" and "preferably" render the claims ambiguous as to scope. It appears that the claims are a direct translation from the prior French application. For purposes of examination and clarity, these phrases and the subject matter to which they refer will be omitted from the claims.

12 Appropriate corrections of these noted objections to the claims are required. Applicant is also requested to aid the examination of the claims by reviewing the claims for any other instances of such language.

Claim Rejections - 35 USC § 102

18 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

24 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the

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invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Ott et al. (US 6,236,790), hereinafter Ott.

Regarding claims 1 and 8, Ott discloses a metal detector and method therefor comprising:

an inductance for creating a magnetic field adapted to induce Foucault or eddy currents in the conductive material when said object is located proximate the said inductance (See Ott FIG. 2, item 22, FIG. 4 and col. 7, line 66 to col. 8, line 18),

means for cutting the supply and the current flowing in the inductance and gathering the voltage and/or current signal

induced in said inductance by said Foucault or eddy currents after cutting (See col. 8, lines 31-65), and

means for analyzing the characteristics of said signal or signals thereby to deduce information relating to the nature and/or thickness of the conductive material of the object detected and/or the distance between said inductance and said object (See col. 8, line 31 to col. 13, line 10).

Regarding claims 2 and 9, Ott discloses the supply to the inductance being carried out by repetitive square voltage pulses, the cutting being synchronized with the descending

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fronts of the pulses (See again col. 8, line 31 to col. 13, line 10).

Regarding claims 3 and 10, Ott discloses a supply unit connected to the inductance (See Ott FIG. 7, item 50) and a means for acquiring and using the voltage signals (See Ott Fig. 6 7, items 56, 58 and 60) for sampling the induced signal at the terminals of the inductance after cutting (See col. 8, line 31 to col. 13, line 10) and means for digital conversion of the samples (See col. 15, line 53 to col. 16, line 7 and col. 17, lines 1-13).

Regarding claim 4, Ott discloses the sampled time signal 12 following the pulse between 10 microseconds and 150 microseconds (See col. 15, line 34 to col. 16, line 7).

Regarding claims 5, 6 and 11, Ott discloses the analysis of the characteristics can comprise integrating signal to form the shape and position of the curve of the decay signal at its bent portion or value at certain points along the curve and comparing 18 to reference curves or characteristics, which is used in deducing the proximity, nature, composition, mass or thickness of the object (See graphs in FIG. 8 and description thereto and col. 8, line 31 to col. 13, line 10).

Regarding claim 7, Ott discloses successively analyzing several induced voltage or current signals associated with

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several sequences of consecutive detection and carrying out an overall evaluation (See col. 8, line 31 to col. 31, line 10).

Regarding claim 12, Ott discloses the inductance being mounted in a sealed protective housing made of stainless steel or metallic alloy (See col. 6, lines 8-29).

6

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited patents, most notably Paltoglou (US 6,586,938) and Keller (US 5,552,705), disclose apparatus and methods for using a pulse
12 signal and measuring the decay following such pulse to determine the characteristics of the object or material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth
18 J. Whittington whose telephone number is (571) 272-2264. The examiner can normally be reached on Monday-Friday, 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the

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organization where this application or proceeding is assigned is
571-273-8300.

Information regarding the status of an application may be
obtained from the Patent Application Information Retrieval

(PAIR) system. Status information for published applications

6 may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system,

see <http://pair-direct.uspto.gov>. Should you have questions on

access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

12



Kenneth J Whittington
Examiner
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kjw